

May 17, 2012

Mr. Craig Thomas
Federal On Scene Coordinator
U.S. EPA Region 5
77 W. Jackson Blvd., SE-5J
Chicago, IL 60604

US EPA RECORDS CENTER REGION 5



474091

**Re: SRD Application for the Portage Creek Area Time Critical Removal Action
Kalamazoo, Michigan**

Dear Mr. Thomas:

Enclosed are two (2) copies of the SRD application for the Portage Creek Time Critical Removal Action (TCRA) in Kalamazoo, Michigan. One copy is for your records. The other is for submittal to the Michigan Department of Natural Resources and Environment. The pages that require signature are tabbed for your convenience. After providing management signature, the final submittal (cover letter and one (1) copy of the original signed and dated SRD application) should be sent to the following address:

Michigan Department of Natural Resources and Environment
Cashier's Office
WB-NP2
P. O. Box 30657
Lansing, Michigan 48909-8157

If you have any questions please do not hesitate to call me at 513-742-7268.

Sincerely,

Jill Rose Binzer
Project Manager/Scientist

Enclosures (2)



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

REGION 5

77 WEST JACKSON BOULEVARD

CHICAGO, IL 60604-3590

May 17, 2012

REPLY TO THE ATTENTION OF:

Michigan Department of Natural Resources and Environment
Cashier's Office
WB-NP2
P.O. Box 30657
Lansing, Michigan 48909-8157

**Re: SRD Application for the Portage Creek Area Time Critical Removal Action
Kalamazoo, Michigan**

Dear Sir/Madam:

Enclosed is one (1) signed copy of the Substantive Requirements Document (SRD) for the Portage Creek Area Time Critical Removal Action located in Kalamazoo, Michigan. The SRD was prepared using the State of Michigan NPDES Permit Application for Discharges to Surface Waters of the State, Sections I and III, as instructed by the Department.

Since this is a U.S. EPA Superfund-lead Time Critical Removal Action, the project is exempt from submitting the permit application fee.

If you have any questions please do not hesitate to call me at (312) 886-5907.

Sincerely,

A handwritten signature in black ink, appearing to read "Craig Thomas".

Craig Thomas
U. S. EPA Federal On Scene Coordinator

Enclosures (1)



**WASTEWATER DISCHARGE PERMIT APPLICATION
FOR
SUBSTANTIVE REQUIREMENTS DOCUMENT

PORTAGE CREEK AREA
TIME CRITICAL REMMOVAL ACTION
KALAMAZOO, MICHIGAN**

Prepared for:

USEPA Region 5
Emergency Response Branch
77 West Jackson
Chicago, IL 60604

Contract No. EP-S5-08-02
Task Order No. 0087

EQ Project No.: 030281.0087

Prepared by:



Environmental Quality Management, Inc.
1800 Carillon Blvd.
Cincinnati, Ohio 45240

May 2012



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Section III Attachment

Figure 1 – Wastewater Treatment Process Drawing

Figure 2 – Project and Discharge Location

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SECTION I GENERAL INFORMATION

Section I shall be completed by all permit applicants. Instructions for completing Section I, Pages 1 and 2, are on Page 2 of the Appendix. To submit additional information, see Page ii, Item 3.

Water Resources Division Use Only Receipt #: _____ Permit ID #: _____	Cashier Use Only: 37000-40535-9412-481000-00
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PLEASE TYPE OR PRINT

1	NPDES PERMIT NUMBER N/A					
2. APPLICANT	Applicant Name U.S. EPA Region 5					
	Address 77 W. Jackson Blvd., SE-5J		Address 2 or P.O. Box			
	City Chicago	State Illinois	ZIP Code 60604			
	Telephone (with area code) (312) 886-5907	FAX (with area code) (312) 353-4135	Applicant Web Site Address Thomas.Craig@epamail.epa.gov			
3. FACILITY	Facility Name 1 Portage Creek Time Critical Removal Action					
	Facility Name 2					
	Facility Name 3					
	Street Address (do not use a P.O. Box Number) N/A					
	City Kalamazoo	State Michigan	ZIP Code 49001			
	Telephone (with area code) (513) 309-4703	FAX (with area code) (513) 825-7495	Facility Web Site Address jrhinefield@eqm.com			
4. CONTACTS	<input checked="" type="checkbox"/> Application Contact	First Name Jeff		Last Name Rhinefield		
	<input checked="" type="checkbox"/> Facility Contact	Title Project Manager		Business Environmental Quality Management, Inc.		
	<input checked="" type="checkbox"/> Discharge Monitoring Reports	Address 1 1800 Carillon Boulevard		Address 2		
	<input type="checkbox"/> Storm Water Billing	City Cincinnati		State Ohio	ZIP Code 45240	
	<input type="checkbox"/> Biosolids Billing	Telephone (with area code) (513) 309-4703	FAX (with area code) (513) 825-7495	e-mail address jrhinefield@eqm.com		
	<input type="checkbox"/> NPDES Annual Billing					
	<input type="checkbox"/> Application Contact	First Name N/A		Last Name		
	<input type="checkbox"/> Facility Contact	Title		Business		
	<input type="checkbox"/> Discharge Monitoring Reports	Address 1		Address 2		
	<input type="checkbox"/> Storm Water Billing	City		State	ZIP Code	
	<input type="checkbox"/> Biosolids Billing	Telephone (with area code)	FAX (with area code)	e-mail address		
	<input type="checkbox"/> NPDES Annual Billing					
	<input type="checkbox"/> Application Contact	First Name N/A		Last Name		
	<input type="checkbox"/> Facility Contact	Title		Business		
	<input type="checkbox"/> Discharge Monitoring Reports	Address 1		Address 2		
	<input type="checkbox"/> Storm Water Billing	City		State	ZIP Code	
	<input type="checkbox"/> Biosolids Billing	Telephone (with area code)	FAX (with area code)	e-mail address		
	<input type="checkbox"/> NPDES Annual Billing					

FACILITY NAME Portage Creek Time Critical Removal Action	NPDES PERMIT NUMBER N/A
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5. **PERMIT ACTION REQUESTED** (Check one box only). Instructions for this item are on Page 2 of the Appendix.

☒ **NEW USE.** A proposed discharge.
☐ **EXISTING DISCHARGE** that is currently unpermitted.
☐ **REISSUANCE** of current permit.
☐ **MODIFICATION** of current permit. Attach a description of the proposed modification.

Note: Applications for **New Use** discharges, **Existing Discharges** that are currently unpermitted, and for either **Reissuance** or **Modification** that include an increased loading of pollutants to the receiving water are required to submit a Rule 98 Demonstration with the Application. See Item 6.

6. **RULE 98 – ANTIDEGRADATION REQUIREMENTS.** Instructions for this item are on Page 2 of the Appendix.

In accordance with Rule 323.1098 of the Michigan Water Quality Standards, the applicant is required to submit an Antidegradation Demonstration for any new or increased loading of pollutants to the surface waters of the state. An Antidegradation Demonstration must contain the information specified in Rule 1098, outlined on Pages 8-9 of the Appendix. For assistance in completing this item, contact the Permits Section.

Will this discharge be an increased loading of pollutants to the surface waters of the state? ☐ Yes, continue below. ☒ No.

☐ Antidegradation Demonstration provided. ☒ Increased loading of pollutants is exempt from Antidegradation Demonstration as indicated below:

- ☐ A short-term (weeks to months) or temporary lowering of water quality
- ☐ Bypasses that are not prohibited by regulations set forth in 40 CFR 122.41(m)
- ☒ Response actions undertaken to alleviate a release of pollutants into the environment that may pose an imminent and substantial danger to the public health or welfare
- ☐ Discharges of pollutant quantities from the intake water at a facility if the intake and discharge are to the same body of water
- ☐ Increases in flow at a POTW if the increase is within the design flow of the facility, there is no increased loading of BCCs that are not specifically limited in the current permit, and there is no significant change expected in the characteristics of the wastewater collected
- ☐ Intermittent increased loading related to wet-weather conditions
- ☐ New or increased loading due to DNRE-approved controls related to wet-weather conditions
- ☐ Discharges authorized by Certificates of Coverage (COC) and Notices of Coverage
- ☐ Increased loadings within the authorized levels of a limit in an existing control document, except those loadings that result from actions by the permittee that would otherwise require submittal of an increased use request
- ☐ Increased loadings of a pollutant which do not involve Bioaccumulative Chemicals of Concern and which use less than 10 percent of the unused loading capacity that exists at the time of the request

7. **ADDITIONAL FACILITY LOCATION INFORMATION.** Instructions for this item are on Page 2 of the Appendix.

A	Local Unit of Government (LUG) City of Kalamazoo, Michigan	LUG e-mail address cokpublicservices@kalamazoo-city.org						
B	County Kalamazoo	Township						
C.	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 15%;">Town T2S</td> <td style="width: 15%;">Range R11W</td> <td style="width: 15%;">Section S15</td> <td style="width: 15%;">¼</td> <td style="width: 15%;">¼, ¼</td> <td style="width: 30%;">Private (French) Land Claim</td> </tr> </table>	Town T2S	Range R11W	Section S15	¼	¼, ¼	Private (French) Land Claim	
Town T2S	Range R11W	Section S15	¼	¼, ¼	Private (French) Land Claim			
D.	Latitude 42 degrees 17 minutes 43 seconds N	Longitude 85 degrees 34 minutes 23 seconds W						

8. **CERTIFIED OPERATOR**

Does the facility have a DNRE-certified operator? ☐ Yes ☒ No Instructions for this item are on Page 2 of the Appendix.

First Name SEE ATTACHMENT	Last Name
Certification Number	Certification Classification(s)
Address 1	Address 2
City	State
Telephone Number	Zip Code
Fax Number	e-mail address

FACILITY NAME Portage Creek Time Critical Removal Action		NPDES PERMIT NUMBER N/A
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9. OTHER ENVIRONMENTAL PERMITS

Provide the information requested below for any other federal, state, or local environmental permits in effect or applied for at the time of submittal of this Application, including, but not limited to, permits issued under any of the following programs: Air Pollution Control, Hazardous Waste Management, Wetlands Protection, Soil Erosion and Sedimentation Control, and other NPDES permits. To submit additional information, see Page II, Item 3.

Issuing Agency	Permit or COC Number	Permit Type
City of Kalamazoo	In process	SESC Permit

10. WATER FLOW DIAGRAM AND NARRATIVE DESCRIPTION **SEE FIGURE 1**

Provide a flow diagram (using 8½" x 11" paper if possible) and a narrative description that explains the diagram. The diagram should show the wastewater flow through the facility (from intake through discharge), including all processes, treatment units, including any lagoons or ponds used for wastewater treatment or storage (identify treatment units that operate intermittently), and bypass piping. Show all operations contributing wastewater and the locations of flow meters, chemical feeds, and monitoring and discharge points. The water balance shall show the daily average flow rates at the intake and discharge points, and approximate daily flow rates between treatment units, including influent and treatment rates. Use actual measurements whenever available, otherwise use the best estimate. Show all significant losses of water to products, atmosphere, and discharge. In addition, provide a flow diagram for any storm water discharges from secondary structures that are required by state or federal law and for storm water runoff from any Site of Environmental Contamination, pursuant to Part 201 of the Michigan Act. Do not send blueprints. Provide black-and-white reproducible diagrams.

Municipal Facilities – Include a narrative that briefly describes the history of the wastewater treatment facility and collection system, including the initial construction, facility improvements, future plans for upgrade, location of all constructed emergency overflows, and other pertinent information.

Industrial and Commercial Facilities – The diagram shall include all operations contributing wastewater, including process and production areas, sanitary flows, cooling water, and storm water runoff. Include a narrative that provides a brief description of the nature of the business and the manufacturing processes.

ATTACH THIS INFORMATION TO THIS APPLICATION. PLEASE DO NOT BIND THIS INFORMATION.

11. MAP OF FACILITY AND DISCHARGE LOCATION **SEE FIGURES 2 and 3**

Provide a detailed black-and-white reproducible map on 8½" x 11" paper showing the location of the existing or proposed facility, wastewater and biosolids treatment system(s), water intakes, wastewater monitoring, and wastewater discharge points into receiving waters (including bypasses). Include the exact location of the water intakes, wastewater monitoring and discharge point(s) and, if applicable, all areas through which the discharge flows (e.g., wetlands, open drains, storm sewers) between the discharge point and the receiving water. If the discharge is to a storm sewer, label the storm sewer and show its flow path to the receiving water. Also include the location of any water supply intakes or wells and groundwater monitoring wells. This map shall be a United States Geological Survey quadrangle (7.5 minute series) or other map of comparable detail, scale, and quality (which shows surface water bodies, roads, bathing beaches, and other pertinent landmarks). It is preferred that the minimum area this map shall encompass be approximately one (1) mile beyond the property boundaries.

ATTACH THIS INFORMATION TO THIS APPLICATION.

FACILITY NAME Portage Creek Time Critical Removal Action				NPDES PERMIT NUMBER N/A		
12. CONTRACT LABORATORIES THAT PROVIDE ANALYTICAL SUPPORT Provide the name and address of each contract laboratory or consulting firm that performed any analyses submitted as part of this Application. To submit additional information, see Page ii, Item 3.						
Laboratory Name TestAmerica			Laboratory Name			
Street Address 4738 Gateway Circle			Street Address			
City Dayton	State Ohio	ZIP Code 45440	City	State	ZIP Code	
Telephone (with area code) (800) 572-9839		Fax (with area code) (937) 294-7816	Telephone (with area code)		Fax (with area code)	
Analysis Performed All parameters			Analysis Performed			
Laboratory Name			Laboratory Name			
Street Address			Street Address			
City	State	City	State	City	State	
Telephone (with area code)		Fax (with area code)	Telephone (with area code)		Fax (with area code)	
Analysis Performed			Analysis Performed			
13. LIST ADJACENT PROPERTY OWNERS List the names and mailing addresses of all property owners for all properties adjacent to the facility, treatment systems, and discharge locations. For vacant lots or empty buildings, supply the owner's mailing address – NOT the lot or building property address. To submit additional information, see Page ii, Item 3.						
Name		Address		City	State	ZIP Code
Unknown Property Ownership		Unknown		Kalamazoo	MI	49007
Starworld Amusements, Inc.		412 Harrison Street		Kalamazoo	MI	49007
City of Kalamazoo Parks and Rec.		241 W. South Street		Kalamazoo	MI	49007
James Pestoor		Unknown		Kalamazoo	MI	49007
Unknown Property Ownership		Unknown		Kalamazoo	MI	49007
City of Kalamazoo Brownsfields		241 W. South Street		Kalamazoo	MI	49007
600 E. Michigan Ave., LLC		600 E. Michigan Ave.		Kalamazoo	MI	49007
Omnisource Michigan Division		7575 W. Jefferson Blvd.		Fort Wayne	IN	46804
City of Kalamazoo Public Services		241 W. South Street		Kalamazoo	MI	49007
Jonan Associates		841 Gibson Street		Kalamazoo	MI	49007
Watco Companies		420 E. Hansen Street S.		Twin Falls	ID	83301
SEE ATTACHMENT		SEE ATTACHMENT		SEE ATTACHMENT		

FACILITY NAME

Portage Creek Time Critical Removal Action

NPDES PERMIT NUMBER

N/A

14. APPLICATION CERTIFICATION

Rule 323.2114(1-4), promulgated under the Michigan Act, requires that this Application must be signed as follows:

- A. For an organization, company, corporation, or authority, by a principal executive officer, vice president, or higher
- B. For a partnership, by a general partner
- C. For a sole proprietor, by the proprietor
- D. For a municipal, state, or other public facility, by a principal executive officer or ranking elected official (e.g., mayor, village president, city or village manager, or clerk)

Note: If the signatory is not listed above, but is authorized to sign the Application, please provide documentation of that authorization.

"I certify under penalty of law that this document and all attachments were prepared under my direction or supervision in accordance with a system designed to assure that qualified personnel properly gather and evaluate the information submitted. Based on my inquiry of the person or persons who manage the system, or those persons directly responsible for gathering the information, the information submitted is, to the best of my knowledge and belief, true, accurate, and complete. I am aware that there are significant penalties for submitting false information, including the possibility of fine and imprisonment for having knowledge of violations."

The last Application for this facility was submitted on: N/A

I understand that my signature constitutes a legal agreement to comply with the requirements of the NPDES Permit. I certify under penalty of law that I possess full authority on behalf of the legal owner/permittee to sign and submit this Application.

Print Name Craig Thomas

Federal On Scene Coordinator

Title: _____

Signature 

Date: 6-11-12

This completes Section I. Publicly-Owned Treatment Works discharging sanitary and industrial wastewater to the surface waters, and privately-owned treatment works discharging sanitary wastewater to the surface waters should complete Section II. Privately-owned treatment works include, but are not limited to, Mobile Home Parks, Campgrounds, Condominiums, Hotels and Motels, and Nursing Homes. All other applicants should complete Section III. If assistance is needed to complete this Application, contact the Permits Section.

Permit Application Submittal Checklist

Please confirm the following before submitting the Application:

- ☒ 1. Section I has been completed, including all diagrams, maps, and the treatment process narrative.
- ☒ 2. The Application has been signed as required above in Section I.14.A.-D. or a copy of the letter authorizing the signatory to sign the letter has been included, as appropriate.
- ☒ 3. Section II or Section III has been completed, including any additional information or submissions.
- ☐ 4. Section IV has been completed by any facility that discharges storm water.
- ☐ 5. Section V has been completed by any facility that is a Concentrated Animal Feeding Operation.
- ☐ 6. Section VI has been completed by any facility that has Cooling Water Intake Structures.
- ☐ 7. A check or money order for the appropriate application fee has been made out to the "State of Michigan" and has been included with the Application submittal.
- ☒ 8. E-mail addresses have been provided.



WASTEWATER DISCHARGE PERMIT APPLICATION**SECTION III – Industrial and Commercial Wastewater**

Section III is to be completed by all facilities classified as Industrial or Commercial facilities. Industrial and Commercial facilities include, but are not limited to, facilities that discharge or propose to discharge a wastewater generated by a production process, a service provided, or through a remediation project. Municipal and public facilities are not required to complete Section III (unless requesting authorization for discharges other than sanitary wastewater).

A. Facility Information

PLEASE TYPE OR PRINT

FACILITY NAME Portage Creek Time Critical Removal Action	NPDES PERMIT NUMBER N/A
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1. BUSINESS INFORMATION

A. Provide up to four Standard Industrial Classification (SIC) or North American Industry Classification System (NAICS) codes, in order of economic importance, which best describe the major products or services provided by this facility

1. N/A	2.	3.	4.
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B. Indicate if this facility is a primary industry (refer to Table 1 of the Appendix to determine if this facility is a primary industry).

☐ Yes. This facility is a primary industry. Indicate the primary industry as identified in Table 1 of the Appendix: _____

☒ No. This facility is not a primary industry.

2. WATER SUPPLY AND DISCHARGE TYPE

A. Identify all water sources entering the facility and treatment systems, and provide average flows. The volume may be estimated from water supply meter readings, pump capacities, etc. Provide the name of the source where appropriate (i.e., Grand River, Lake Michigan, City of Millpond). To submit additional information, see Page ii, Item 3.

	Name and Location of Source	Average Volume or Flow Rate	Units
Municipal Supply	N/A		
Surface Water Intake	N/A		
Private Well	N/A		
Other: <u>X</u>	Rain, sediment dewatering, decon	0.036	MGD

B. Identify water discharged by the facility and treatment systems, and provide average flows. If water is first used for one purpose and then is subsequently used for another purpose, indicate the type and amount of the last use. For example, if water is initially used for noncontact cooling water and then for process water, indicate the amount of process water. The amount of water from sources should approximate the amount of water usage. If the amounts are different, provide an explanation.

	Average Flow Rate	Units		Average Flow Rate	Units
Process Wastewater	N/A		Sanitary Wastewater	N/A	
Contact Cooling Water	N/A		Regulated Storm Water	N/A	
Noncontact Cooling Water	N/A		High Pressure Test Water	N/A	
Groundwater Cleanup	N/A		Other: <u>X</u>	0.036 See Attac	MGD

Note: For A. and B. above, indicate units as MGD (million gallons per day), MGY (million gallons per year), GPD (gallons per day), or other appropriate unit.

WASTEWATER DISCHARGE PERMIT APPLICATION**SECTION III – Industrial and Commercial Wastewater****B. Outfall Information**

Complete a separate Section III.B. – Outfall Information (Pages 19 – 24) for each outfall at the facility. Make copies of this blank section of the Application as necessary for additional outfalls.

PLEASE TYPE OR PRINT

FACILITY NAME Portage Creek Time Critical Removal Action	NPDES PERMIT NUMBER N/A	OUTFALL NUMBER 001
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1. OUTFALL INFORMATION. Instructions for this item are on Page 3 of the Appendix.

A.	Receiving Water Portage Creek				Hydrologic Unit Code 04050003	
B.	County Kalamazoo				Township	
C.	Town T2S	Range R11W	Section S15	¼	¼, ¼	Private (French) Land Claim
D.	Latitude 42 degrees 17 minutes 43 seconds				Longitude 85 degrees 34 seconds 23 minutes	
E.	Type of Wastewater Discharged (check all that apply to this outfall):					
	<input type="checkbox"/> Contact Cooling	<input type="checkbox"/> Groundwater Cleanup	<input type="checkbox"/> Hydrostatic Pressure Test	<input type="checkbox"/> Noncontact Cooling Water		
	<input type="checkbox"/> Process Wastewater	<input type="checkbox"/> Sanitary Wastewater	<input checked="" type="checkbox"/> Storm Water - not regulated	<input type="checkbox"/> Storm Water - regulated		
	<input type="checkbox"/> Storm water subject to effluent guidelines (indicate under which category): _____					
	<input checked="" type="checkbox"/> Other – specify (see Table 8 – Other Common Types of Wastewater on Page 17 in the Appendix) <u>See Attachment</u>					

F. The Maximum Design Flow Rate for this outfall is: 0.072 MGD

G. What is the Maximum Authorized Daily Discharge Flow for this outfall for the next five years?

Seasonal Dischargers 14.3 MGY (Continue with Item H.)

Continuous Dischargers _____ MGD (Continue with Item I.)

H. Seasonal Discharge:

List the discharge periods (by month) and the volume discharged in the space provided below.

From April 30, 2012	Through November 15, 2012	Actual Discharge Volume (MGD) 0.072	Annual Total See Attachment
From April 30, 2013	Through November 15, 2013	Actual Discharge Volume (MGD) 0.072	
From April 30, 2014	Through November 15, 2014	Actual Discharge Volume (MGD) 0.072	
From	Through	Actual Discharge Volume (MGD)	

I. Continuous Discharge:

How often is there a discharge from this outfall (on average)? up to 24 Hours/Day 200 Days/Year

Batch dischargers are required to provide the following additional information:

Is there effluent flow equalization? ☐ Yes ☐ NoBatch Peak Flow Rate: N/ANumber of batches discharged per day: N/A

	Minimum	Average	Maximum
Batch Volume (gallons)	N/A		
Batch Duration (minutes)	N/A		

WASTEWATER DISCHARGE PERMIT APPLICATION**SECTION III – Industrial and Commercial Wastewater****B. Outfall Information**

PLEASE TYPE OR PRINT

FACILITY NAME Portage Creek Time Critical Removal Action	NPDES PERMIT NUMBER N/A	OUTFALL NUMBER 001
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2. PROCESS STREAMS CONTRIBUTING TO OUTFALL DISCHARGE

Federal regulations require that different industries report different information depending on the type of facility. The information below is used to determine the applicable federal regulations for this facility. An abbreviated list is on Page 11 in the 'Summary of Information to be reported by Industry Type' section of the Appendix. Applicants are required to provide the name and the SIC or the NAICS code for each process at the facility. Facilities with production-based limits must report an estimated annual production rate for the next five (5) years or the life of the permit. If the wastestream is not regulated under federal categorical standards, the applicant is required to report all pollutants which have the reasonable potential to be present in the discharge. To submit additional information, see Page ii, Item 3.

PROCESS INFORMATION

A. Name of the process contributing to the discharge: Contaminated stream sediment dewatering, storm water, decon water

B. SIC or NAICS code: N/A

C. Describe the process and provide measures of production:
Dewatering of sediment removed from Portage Creek; vehicle and equipment decon wash water from truck washes; precipitation that falls within the confines of the soil stabilization/staging pad

PROCESS INFORMATION

A. Name of the process contributing to the discharge: N/A

B. SIC or NAICS code: _____

C. Describe the process and provide measures of production:

PROCESS INFORMATION

A. Name of the process contributing to the discharge: N/A

B. SIC or NAICS code: _____

C. Describe the process and provide measures of production:

PROCESS INFORMATION

A. Name of the process contributing to the discharge: N/A

B. SIC or NAICS code: _____

C. Describe the process and provide measures of production:

PROCESS INFORMATION

A. Name of the process contributing to the discharge: N/A

B. SIC or NAICS code: _____

C. Describe the process and provide measures of production:

Michigan Department of Natural Resources and Environment – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
 SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME Portage Creek Time Critical Removal Action	NPDES PERMIT NUMBER N/A	OUTFALL NUMBER 001
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3. EFFLUENT CHARACTERISTICS - CONVENTIONAL POLLUTANTS. Instructions for this item are on Page 4 of the Appendix.

☒ Check this box if additional information is included as an attachment. To submit additional information, see Page ii, Item 3.

Please Note: Rule 323.1062 allows the use of either *Escherichia coli* or Fecal Coliform Bacteria as an indicator that effluent has been disinfected. The DNRE will use the indicator selected below in the permit issued based on this Application. ☐ Use *Escherichia coli* as an indicator of disinfection. ☐ Use Fecal Coliform Bacteria as an indicator of disinfection.

Submitted via DMRs or eDMRs	Waiver Request and the Rationale Behind the Request	Parameter	Maximum Monthly Concentration	Maximum Daily Concentration	Units	Number of Analyses	Sample Type
<input type="checkbox"/>	Not expected to be present	Biochemical Oxygen Demand – five day (BOD ₅)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Not expected to be present	Chemical Oxygen Demand (COD)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Not expected to be present	Total Organic Carbon (TOC)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Not expected to be present	Ammonia Nitrogen (as N)			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>		Total Suspended Solids	30	45	mg/l	Weekly	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Total Dissolved Solids			mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Total Phosphorus (as P)		report	mg/l	Monthly	<input checked="" type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Fecal Coliform Bacteria (report geometric means)		Maximum 7-day	counts/100ml		Grab
<input type="checkbox"/>	Waiver Request Not Required	<i>Escherichia coli</i> (report geometric means)		Maximum 7-day	counts/100 ml		Grab
<input type="checkbox"/>	Waiver Request Not Required	Total Residual Chlorine			<input type="checkbox"/> mg/l <input type="checkbox"/> µg/l		Grab
<input type="checkbox"/>	Waiver Request Not Required	Dissolved Oxygen	Do Not Use	Minimum Daily	mg/l		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Not expected to be affected	pH (report maximum and minimum of individual samples)	Minimum	Maximum	standard units		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Not expected to be affected	Temperature, Summer			<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Not expected to be affected	Temperature, Winter			<input type="checkbox"/> °F <input type="checkbox"/> °C		<input type="checkbox"/> Grab <input type="checkbox"/> 24-Hr Comp
<input type="checkbox"/>	Waiver Request Not Required	Oil & Grease			mg/l		Grab

Michigan Department of Natural Resources and Environment – Water Resources Division
WASTEWATER DISCHARGE PERMIT APPLICATION
SECTION III – Industrial and Commercial Wastewater

B. Outfall Information

PLEASE TYPE OR PRINT

FACILITY NAME	NPDES PERMIT NUMBER	OUTFALL NUMBER
Portage Creek Time Critical Removal Action	N/A	001

Note: For questions on this page, Tables 1 – 5 are found in the Appendix.

4. PRIMARY INDUSTRY PRIORITY POLLUTANT INFORMATION

Existing primary Industries that discharge process wastewater are required to submit the results of at least one permittee-collected effluent analysis for selected organic pollutants identified in Table 2 (as determined from Table 1, Testing Requirements for Organic Toxic Pollutants by Industrial Category), and all of the pollutants identified in Table 3. Existing primary industries are required to also provide the results of at least one permittee-collected effluent analysis for any other chemical listed in Table 2 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

New primary Industries that propose to discharge process wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

5. DIOXIN AND FURAN CONGENER INFORMATION

Existing Industries that use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid, (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnell); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, are required to submit the results of at least one effluent analysis for the dioxin and furan congeners listed in Table 6. All effluent analyses for dioxin and furan congeners shall be conducted using USEPA Method 1613.

In addition, submit the results of all other effluent analyses performed within the last three years for any dioxin and furan congener listed in Table 6.

New Industries that expect to use or manufacture 2,3,5-trichlorophenoxy acetic acid (2,4,5-T); 2-(2,3,5-trichlorophenoxy) propanoic acid (Silvex, 2,3,5-TP); 2-(2,4,5-trichlorophenoxy) ethyl 2,2-dichloropropionate (Erbon); 0,0-dimethyl 0-(2,4,5-trichlorophenyl) phosphorothionate (Ronnell); 2,4,5-trichlorophenol (TCP); or hexachlorophrene (HCP), or knows or has reason to believe that 2,3,7,8-Tetrachlorodibenzo-p-dioxin (TCDD) is present in the facility's effluent, shall provide estimated effluent concentrations for the dioxin and furan congeners listed in Table 6.

6. OTHER INDUSTRY PRIORITY POLLUTANT INFORMATION

Existing secondary Industries or existing primary Industries that discharge nonprocess wastewater are required to submit the results of at least one effluent analysis for any chemical listed in Tables 2 and 3 known or believed to be present in the facility's effluent.

In addition, submit the results of all other effluent analyses performed within the last three years for any chemical listed in Tables 2 and 3.

New secondary Industries or new primary Industries that propose to discharge nonprocess wastewater are required to provide an estimated effluent concentration for any chemical listed in Tables 2 and 3 expected to be present in the facility's effluent.

7. ADDITIONAL TOXIC AND OTHER POLLUTANT INFORMATION

All existing Industries, regardless of discharge type, are required to provide the results of at least one analysis for any chemical listed in Table 4 known or believed to be present in the facility's effluent, and a measured or estimated effluent concentration for any chemical listed in Table 5 known or believed to be present in the facility's effluent. In addition, submit the results of any effluent analysis performed within the last three years for any chemical listed in Tables 4 and 5.

New Industries, regardless of discharge type, are required to provide an estimated effluent concentration for any chemical listed in Tables 4 and 5 expected to be present in the facility's effluent.

8. INJURIOUS CHEMICALS NOT PREVIOUSLY REPORTED

New or existing Industries, regardless of discharge type, are required to provide a measured or estimated effluent concentration for any toxic or otherwise injurious chemicals known or believed to be present in the facility's effluent that have not been previously identified in this Application. Quantitative effluent data for these chemicals that is less than five years old shall be reported.

NOTE: All effluent data submitted in response to questions 4, 5, 6, 7, and 8 above should be recorded on Page 23. To submit additional information, see Page ii, Item 3. If the effluent concentrations are estimated, place an "E" in the "Analytical Method" column. The following fields shall be completed for each data row: Parameter, CAS No., Concentration(s), Sample Type, and Analytical Method. For analytical test requirements, see Page ii, Item 5. Tables 1, 2, and 3 can be found in the Appendix.

If Alternate Test Procedures have been approved for any parameter listed above (Items 4. through 8.), see Page ii, Item 5. for additional instructions.

B. Outfall Information

[illegible]

WASTEWATER DISCHARGE PERMIT APPLICATION**SECTION III – Industrial and Commercial Wastewater****B. Outfall Information**

PLEASE TYPE OR PRINT

FACILITY NAME Portage Creek Time Critical Removal Action	NPDES PERMIT NUMBER N/A	OUTFALL NUMBER 001
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9. WATER TREATMENT ADDITIVES

Water treatment additives include any material that is added to water used at the facility or to wastewater generated by the facility to condition or treat the water.

Approvals of water treatment additives are authorized by the DNRE under separate correspondence. The issuance of an NPDES permit does not constitute approval of the water treatment additives that are included in this Application.

A. Are there water treatment additives in the discharge from this facility?

☐ Yes.

☒ No. Proceed to Item 10.

B. Have these water treatment additives been previously approved?

☐ Yes. Submit a list of the previously-approved water treatment additives and the date on which they were approved. The information listed in Item C., Items 1. – 8. shall be updated if it has changed since the previous approval.

☐ No. Continue with Item C.

C. Submit a list of water treatment additives that are or may be discharged from the facility. Applicants are required to submit the information listed below for each additive.

1. The water treatment additive Material Safety Data Sheet
2. The proposed water treatment additive discharge concentration
3. The discharge frequency (i.e., number of hours per day, week)
4. The outfall from which the water treatment additive is to be discharged
5. The type of removal treatment, if any, that the water treatment additive receives prior to discharge
6. The water treatment additive function (i.e., microbiocide, flocculant)
7. A 48-hour LC50 or EC50 for a North American freshwater planktonic crustacean (either *Ceriodaphnia* sp., *Daphnia* sp., or *Simocephalus* sp.)
8. The results of a toxicity test for one other North American freshwater aquatic species (other than a planktonic crustacean) that meets a minimum requirement of Rule 323.1057(2)(a) of the Water Quality Standards. Examples of tests that would meet this requirement include a 96-hour LC50 for rainbow trout, bluegill, or fathead minnow.

The required toxicity information (described in Items 7. and 8. above) is currently available in the Water Resource Division's files for the water treatment additives listed on the DNRE's Internet page. To access that information, go to <http://www.michigan.gov/deq>, click on Site Map, at the bottom of the right column under **Water Quality Monitoring**, click on Assessment of Michigan Waters. Under the **Information** heading, click on the Water Treatment Additive List. If you intend to use one of the water treatment additives on this list, only the information in Items 1. through 6. above needs to be submitted to the Water Resources Division.

Note: The availability of toxicity information for a water treatment additive does not constitute approval to discharge the water treatment additive.

10. WHOLE EFFLUENT TOXICITY (WET) TESTS

Have any acute or chronic WET tests been conducted on any discharges or receiving water(s) in relation to facility discharges within the last three (3) years? If yes, identify the tests and summarize the results on a separate sheet, unless the test has been submitted to the DNRE in the last three (3) years. For assistance with WET testing, see "Whole Effluent Toxicity Test Guidance and Requirements" on Page 17 in the Appendix.

No

This completes Section III. Return the completed Application (Sections I, III, IV, VI [if applicable], and any attachments) to one of the addresses on Page ii of this Application. If assistance is needed to complete this Application, contact the Permits Section.





SECTION III ATTACHMENT

**SUBSTANTIVE REQUIREMENTS DOCUMENT
PORTAGE CREEK TIME CRITICAL REMOVAL ACTION**

**Section III: Industrial and Commercial Wastewater
ADDENDUM**

Section A.2.B Water Supply and Discharge Type

Identify water discharged by the facility and treatment systems, and provide average flows:

The wastewater treatment plant (WWTP) will support dredging operations at the Portage Creek Time Critical Removal Action project site. Polychlorinated biphenyl (PCB) contaminated sediments will be removed from targeted locations over a 1.8-mile section of Portage Creek. The WWTP will receive contaminated water from:

- Water generated from dewatering excavated sediments staged on dewatering pad;
- Water generated from truck tire wash and equipment decontamination at the excavation area and dewatering/staging/load out pad; and
- Storm water that falls within the confines of the stabilization/staging pad.

The WWTP will be designed to handle 0.072 MGD of wastewater from the above operations. The average flow rate is estimated to be 0.036 MGD.

Section B.1.E. Outfall Information

Identify type of wastewater discharged:

The wastewater treatment plant (WWTP) will support dredging operations at the Portage Creek Time Critical Removal Action project site. Polychlorinated biphenyl (PCB) contaminated sediments will be removed from targeted locations over a 1.8-mile section of Portage Creek. Outfall 001 will receive and discharge the following treated water:

- Treated water generated from dewatering excavated sediments staged on dewatering pad;
- Treated water generated from truck tire wash and equipment decontamination at the excavation area and dewatering/staging/load out pad; and
- Treated storm water that falls within the confines of the stabilization/staging pad.

The wastewater treatment system consists of sedimentation and filtration, followed by two-stage activated carbon treatment. Samples collected at Outfall 001 will be analyzed for Total PCBs, Total Suspended Solids, and Total Phosphorus.

Section B.1.H Outfall Information

Seasonal Discharges: List the seasonal discharge periods by month and the volume discharged:

The wastewater treatment plant will be in use at the site during the following time periods. Excavation will be suspended during the winter months.

From	Through	Annual Total
April 30, 2012	November 15, 2012	0.072 MGD
April 30, 2013	November 15, 2013	0.072 MGD
April 30, 2014	November 15, 2014	0.072 MGD

During the active time periods, discharges will be continuous. Discharges will vary based upon precipitation, since storm water will make up a significant proportion of the inflow to the wastewater treatment system.

Section B.3. Outfall Information

In addition to the conventional pollutants, the wastewater will be analyzed for Polychlorinated biphenyls (PCBs):

<u>Maximum Monthly Loading</u>	<u>Maximum Monthly Concentration</u>	<u>Number of Analyses</u>	<u>Sample Type</u>
0.7×10^{-8} lbs/day	2.6×10^{-5} ug/l	Weekly	Grab





FIGURE 1

Wastewater Treatment Process Overview

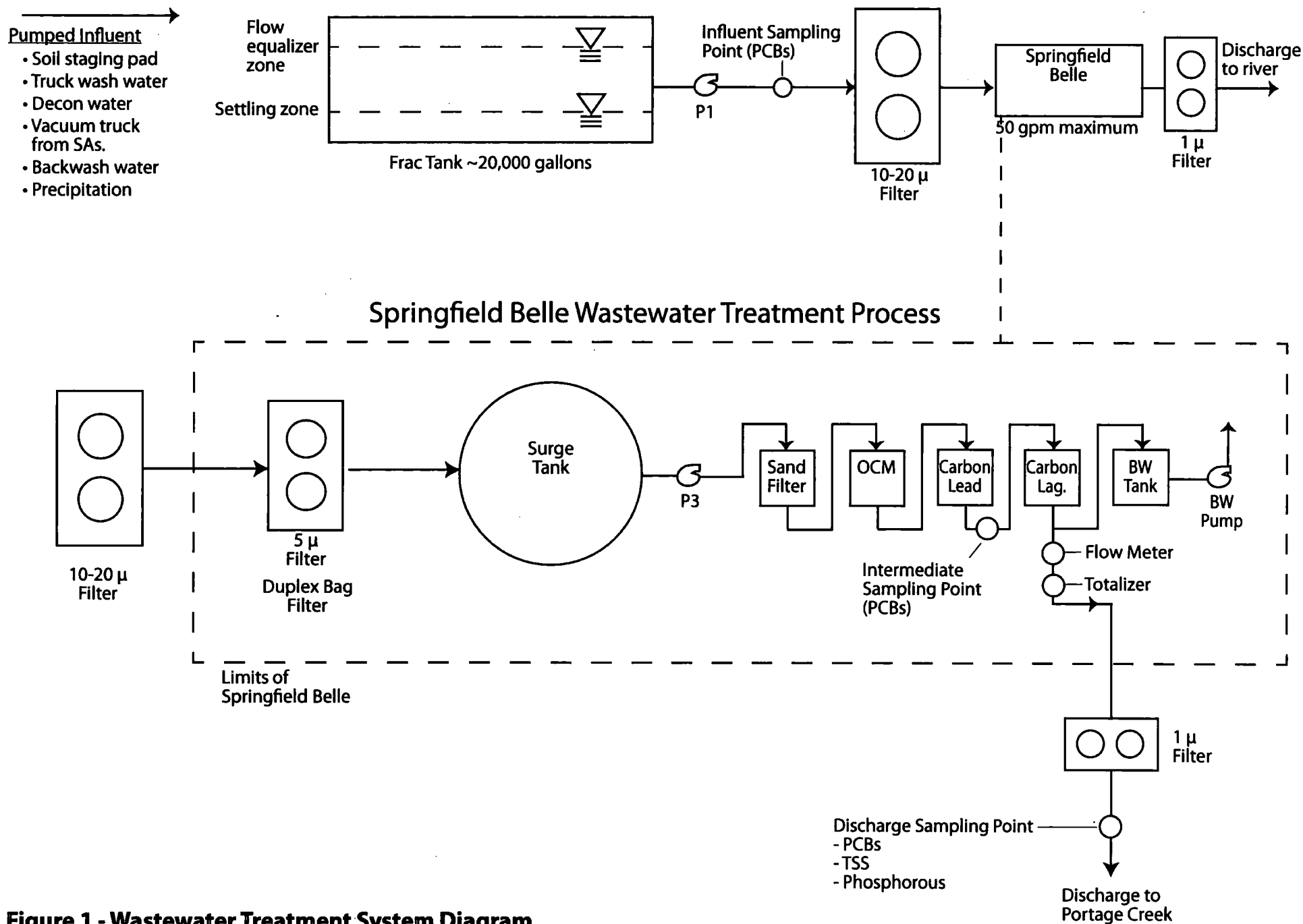
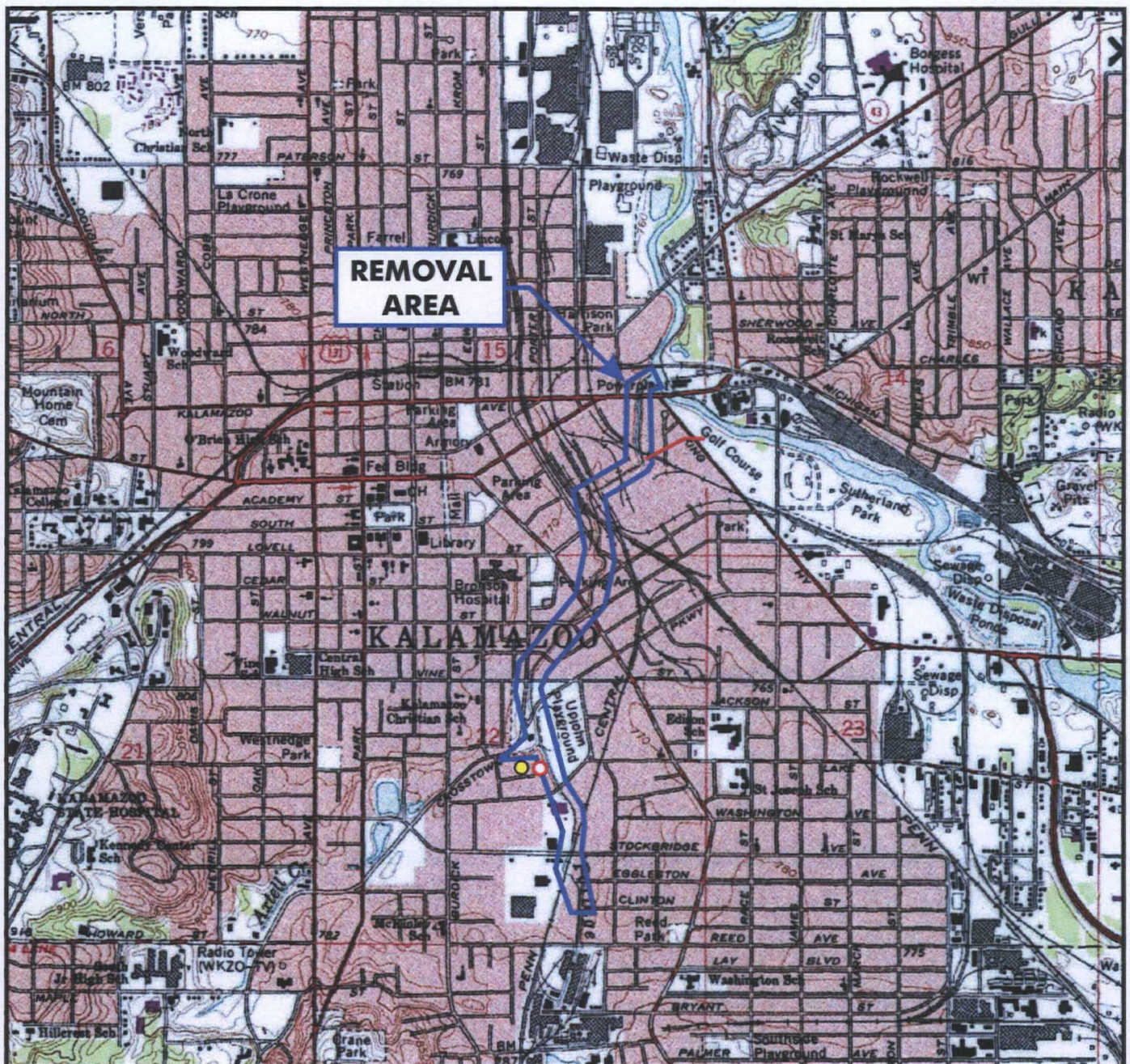


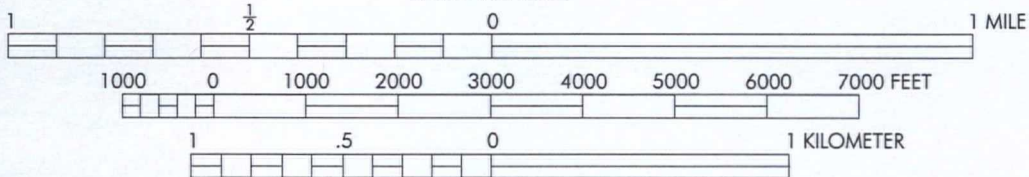
Figure 1 - Wastewater Treatment System Diagram



FIGURE 2



Scale 1:24000



- - Wastewater Treatment Plant and Monitoring
- - Wastewater Discharge Point

EQ ENVIRONMENTAL QUALITY
MANAGEMENT, INC.
1800 Carillon Boulevard
Cincinnati, Ohio 45240
(513) 825-7500

BASE MAP SOURCE:
USGS 7 1/2 minute topographic
quadrangle map Kalamazoo, MI
1967 (photorevised 1973).

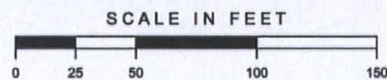
Reference:
Allied Portage Creek
Kalamazoo, Michigan

Date: May 2012

**Figure 2 Project
and Discharge
Location**



FIGURE 3



REV	DESCRIPTION	DATE	APPROVED



ENVIRONMENTAL QUALITY
MANAGEMENT, INC.
1800 CHILLIN BLVD., CINCINNATI, OHIO 45240
PHONE 513.635.7000 / FAX 513.635.7400
WWW.EQM.COM

OWNER	R. RUSSELL	05-07-12
CHECKED	J. BINZER	05-07-12
APPROVED	J. BINZER	05-07-12

SCALE: AS SHOWN

PORTAGE CREEK
WWTP LOCATION

REV	PROJECT NO.	DWG NO.	REV
B	030281.0087	FIGURE 3	0



SECTION I ATTACHMENT

**SUBSTANTIVE REQUIREMENTS DOCUMENT
PORTAGE CREEK TIME CRITICAL REMOVAL ACTION**

SECTION 1 GENERAL FACILITY INFORMATION ADDENDUM

Part 8: Certified Operator

A certified operator will not be established. The primary operator of the wastewater treatment system will be:

Mr. Chris Long
clong@eqm.com
(513) 265-5822

Part 10: Wastewater Flow Diagram and Narrative Description

The Water Flow Diagram for the Wastewater Treatment System at the Portage Creek Time Critical Removal Action in Kalamazoo, Michigan is attached as Figure 1. A narrative description that explains the diagram follows.

The nature of activity at the Portage Creek Time Critical Removal Action project site is to remove polychlorinated biphenyl (PCB) contaminated sediments from targeted locations over a 1.8-mile section of Portage Creek. The project site is a portion of the Allied Paper/Portage Creek/Kalamazoo River Superfund Site. The Site is located in Kalamazoo County, Michigan, and is pervasively contaminated with PCBs as a result of historic waste practices associated with several paper mills.

The wastewater treatment plant will have one discharge point (Outfall 001) to Portage Creek. The mobile wastewater treatment plant will be situated in one location throughout the project, at the Command Post, located along the north end of the John Street staging pad near the sump (Figures 2 and 3). The sources of wastewater treated by the wastewater treatment system include water from the soil staging pad, precipitation, truck wash water, and other decontamination water. Backwash water from the treatment system will also be treated. The intake to the wastewater treatment system will be from the sump located in the northeast corner of the staging pad (Figure 3). Wastewater will not be piped to the wastewater treatment plant. Wastewater will be staged at the excavation area in a 20,000-gallon frac tank. A vacuum truck will transport the wastewater from the excavation areas to the John Street staging pad. The wastewater delivered by the vacuum truck will either be discharged directly into the sump, or onto the staging pad so that it can filter through the sand and filter fabric draping the blocks bordering the sump.

The wastewater treatment system overview consists of a solids/flow equalization frac tank and the Springfield Belle water treatment system, originally designed and fabricated for the United States Environmental Protection Agency (USEPA) Region V in 1993. The system rating for the Springfield Belle is 50 gallons per minute maximum flow.

The 20,000-gallon frac tank will provide for solids settling of larger sized materials and heavy sediments from the wastewater flow in the lower half of the tank. The upper half of the tank will

provide for flow equalization and provide capacity for flow fluctuations. The flow equalization tank portion will mitigate changes in varying flow rates entering the treatment system.

Following the solids settling/flow equalization stage, the wastewater passes through a 10-20 micron filter to further remove solids prior to entering the Springfield Belle wastewater treatment plant system.

The first step in the Springfield Belle system is filtration with a 5 micron filter for finer sediment removal. Next the wastewater enters a surge tank for repressurization through the remaining portions of the system. A pump transfers the wastewater from the surge tank to the organically modified clay (OMC) vessel, used predominantly to extend the life of the activated carbon vessels. OMC removes mechanically emulsified oil and grease, large molecular weight chlorinated hydrocarbons, and heavy metals. Following the OMC vessel, wastewater flows to the carbon adsorption vessels. The bituminous coal based carbon can accommodate adsorbates of varied molecular size and functions in ultra-high removal of low molecular weight volatile organic compounds. The carbon adsorption tanks are arranged in lead/lag series to maximize carbon adsorption efficiency. When the lead vessel becomes spent, the adsorber will be taken off-line for servicing and the flow will be directed through the second (lag) adsorber. Once the first unit is serviced, the adsorber is placed back in service as the lag adsorber.

After exiting the Springfield Belle system, the wastewater passes through a final 1 micron filter to remove ultra-fine solids, prior to discharging to Portage Creek.

When the system is cleaned, backwash water will flow to the frac tank serving as the solids settling/flow equalization tank. This water will then be processed through the treatment system.

A flow meter is positioned in the discharge line of the wastewater treatment system after the carbon adsorption lag vessel prior to the 1 micron filter (discharge flow). A non-resettable totalizer is also provided in the same line.

Weekly wastewater grab samples will be collected at three locations throughout the treatment process as follows. In addition, a monthly grab sample will be collected at Outfall 001 and analyzed for Total Phosphorus.

- **Influent Sampling Point** – prior to wastewater entering Springfield Belle system after flow equalization tank (PCBs)
- **Intermediate Sampling Point** – between carbon adsorption lead and lag vessels (PCBs)
- **Final Discharge Sampling Point** – after 1 micron filter prior to discharge to Portage Creek (PCBs, Total Suspended Solids)

Daily outfall observations consisting of the following visual parameters will be conducted on the treated wastewater and the receiving water:

- Unnatural turbidity
- Color
- Oil film
- Floating solids
- Foams

- Settleable solids
- Suspended solids
- Deposits

The wastewater treatment system is not expected to have any significant losses. The inflow to the system will sometimes vary from the effluent, due to the treatment of backwash water.

Part 13 List of Adjacent Property Owners (cont'd)

Name	Address	City	State	Zip Code
Bronson Properties Corp.	601 John Street	Kalamazoo	MI	49007
Bronson Methodist Hospital	601 John Street	Kalamazoo	MI	49007
Roger W. and Shirley A. Knapp	1329 Floral Drive	Kalamazoo	MI	49008
504 Lake, LLC Tom Sokolski	3713 Grace Road	Kalamazoo	MI	49006
Kalamazoo Public School District	1220 Howard Street	Kalamazoo	MI	49008





SECTION III INDUSTRIAL AND COMMERCIAL WASTEWATER